

A second *Scirtothrips* species with a hind-femoral comb in males (Thysanoptera, Thripidae)

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Amongst the 100 described species worldwide of the genus *Scirtothrips*, the South African Citrus Thrips, *S. aurantii* Faure, has been considered unique because the males possess a comb of stout setae on the hind femora (Hoddle & Mound, 2003). A new species that shares this character state is described here from *Cedrus* (Pinaceae) in Kenya, although no information is available for either species concerning the functional significance of this comb.

The host association of this new species is interesting, because *Scirtothrips* species are generally considered to be associated with the young leaves of dicot plants, on which some are important pests (Mound & Palmer, 1981). Despite this, several relatively unrelated species within the genus have radiated onto various unrelated Gymnospermae. Two are associated with *Juniperus* (*S. brevipennis* in eastern North America, and *S. juniperinus* in Central Asia), one with *Libocedrus* (*S. solaris* in California), and one with *Taxodium* (*S. taxodii* in eastern North America), and in Australia two species are associated with the young fronds of cycads (*S. litotetes* on *Lepidozamia* and *S. tenor* on *Cycas*). Moreover, two species are known from different tree ferns (*S. pteridis* in Costa Rica, and *S. frondis* in Australia). *Scirtothrips* is thus yet another example of radiation within a genus of Thysanoptera that involves exploitation of unrelated plants (Mound, 2005), such as *Cranothrips* Bagnall (Pereyra & Mound, 2009) and *Echinothrips* Moulton (Mound & Marullo, 1996), rather than fidelity to any particular plant lineage. For full nomenclatural details of all taxa mentioned here see Mound (2010).

Scirtothrips mugambii sp. n.

Female macroptera. Body mainly brown, abdomen darkest, tergites II–VIII and sternites III–VII with dark brown antecostal ridge; forewings brown; antennal segment I pale, II–VIII dark.

Head about twice as wide as long, postocular and ocellar region closely striate (Fig. 3); ocellar setae pair III arise within ocellar triangle on or close to tangent between anterior margins of posterior ocelli, distance between their bases about equal to their length; compound eyes with no ommatidia strongly pigmented; two pairs of post-ocular setae longer than ocellar setae pair III. Antennae 8-segmented, with many microtrichia (Fig. 2).

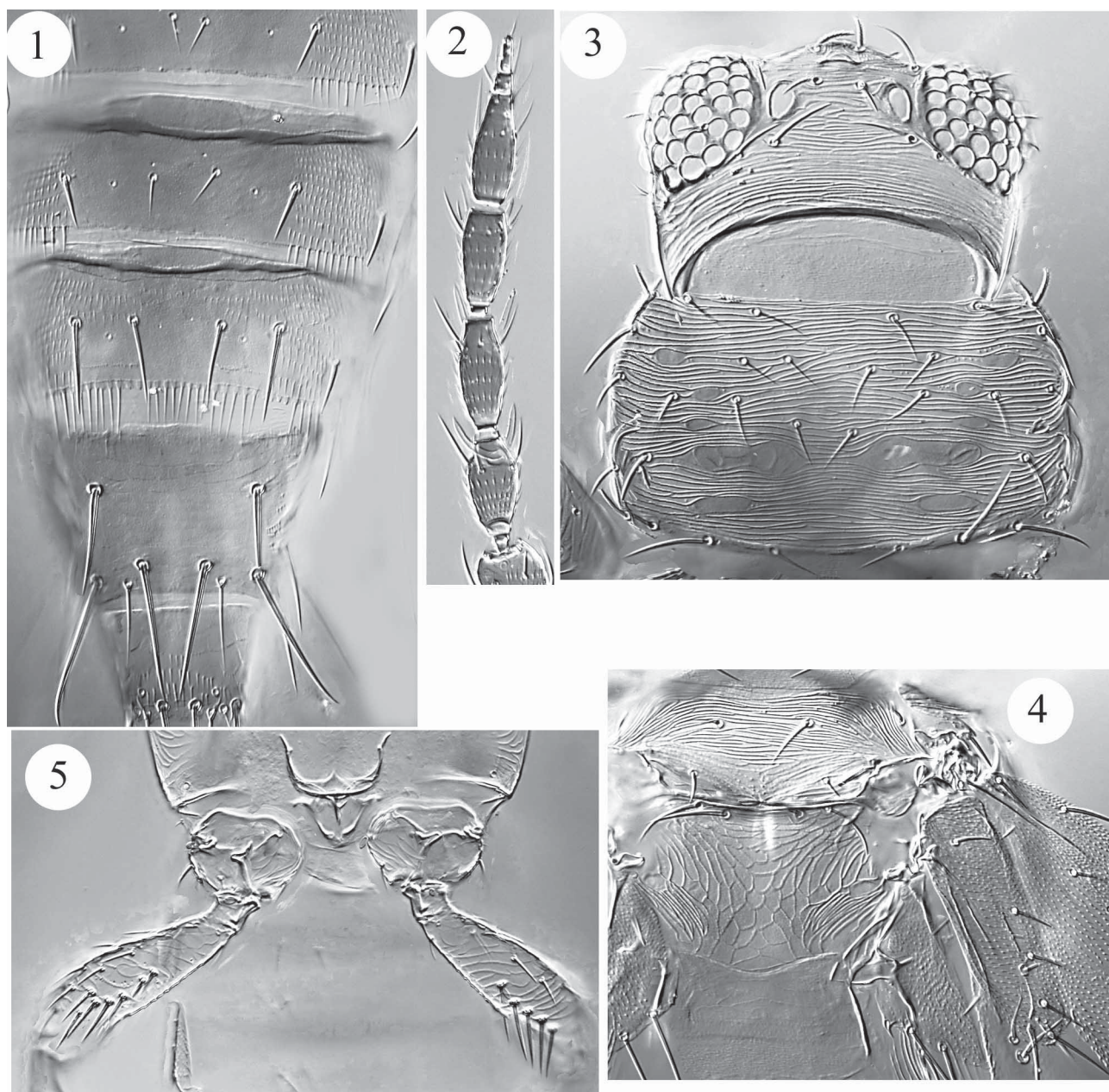
Pronotum closely striate (Fig. 3), with 4 pairs of posteromarginal setae, pair S2 scarcely longer than S3. Metanotum reticulate, anterior reticles transverse (Fig. 4); median pair of setae close to anterior margin. Forewing clavus with 4 marginal setae and one discal seta (Fig. 4); second vein with 3 setae, first vein with 3 setae on distal half; posteromarginal fringe cilia wavy.

Tergites II–V with median setae small and close together; tergal microtrichial fields with 2–3 discal setae; VIII usually with one row of discal microtrichia anteromedially, posteromarginal comb complete (Fig. 1); tergite IX with no discal microtrichia, X with band of microtrichia near posterior margin. Sternites with microtrichia extending mesad almost to level of setae S1; marginal setae arising at margin.

Measurements of holotype female in microns. Body length 930. Head, length 60; width 135. pronotum, length 85; width 160; posteromarginal setae 18, 35, 25, 8. Forewing length 630. Antennal segments III–VIII length 45, 42, 40, 40, 7, 15.

Male macroptera. Similar to female in sculpture, but smaller and paler; hind femur with row of 5–7 stout dark setae on distal posterior margin (Fig. 5); tergite IX with pair of upwardly curving dark drepanae.

Specimens studied. Holotype female, **KENYA**, Meru, Maua, from *Cedrus*, 17.v.2009 (J. Mugambi), in the Natural History Museum, London.



FIGURES 1–5. *Scirtothrips mugambi* sp. n. (1) Tergites VI–X. (2) Antenna. (3) Head and pronotum. (4) Mesonotum and metanotum. (5) Male hind femora.

Paratypes, 2 males, 10 females, in the National Museum of Kenya, Nairobi, the Natural History Museum, London, and the Australian National Insect Collection, Canberra.

Comments. The only available keys to the species of *Scirtothrips* from Africa (Faure, 1925; Bailey, 1964) are based largely on colour and silhouette characters such as setal lengths. Subsequent studies have emphasised the importance of surface structure in the recognition of species in this genus (Mound, 1968; Mound & Palmer, 1981; Hoddle & Mound, 2003). Despite the lack of detailed information in the descriptions of the African species it is clear that this new species can be distinguished from the previously named species; from *spinus* Faure by the shorter pronotal setae; from *zuluensis* Faure by the few setae on the forewing second vein; from *fulleri* Faure by the fewer setae on the tergal microtrichial fields; from *combreti* Faure by the uniformly coloured forewings; from *africanus* Faure and *aurantii* Faure by the dark tergites; and from *kenyensis* Mound by the forewing wavy marginal cilia and the shorter pronotal setae. Only two species, *aurantii* and *mugambii*, are known to have the remarkable comb of stout setae on the hind femora of males, but in *aurantii* the microtrichia extend fully across the sternites and this suggests that these two are not closely related. The reticulate sculpture on the metanotum and the lack of microtrichia medially on the sternites might indicate that

mugambii is more closely related to *kenyensis* but, judging from available fragmentary material, the African fauna of *Scirtothrips* is probably more extensive than the described species indicate.

Acknowledgements

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